



THE JOURNAL OF ASTROSOCIOLOGY – LIST OF SUGGESTED AUTHOR TOPICS

Suggested Topics

Acceptable Topics for the Journal of Astrosociology

The Journal of Astrosociology is the official journal of the Astrosociology Research Institute and the primary resource for astrosociological theory and research. The unique approach expected for contributions to this journal involves a specific reference to *astrosocial phenomena*. It is this focus on the human dimension of space, i.e., the relationship between space and humankind, which sets astrosociology apart from other approaches. Contributors are asked to incorporate the field of astrosociology into their research and focus in some recognizable fashion on *astrosocial phenomena*. To assist Authors, the Astrosociological Research Institute offers free access to astrosociological resources in our Virtual Library (<http://astrosociology.org/vlibrary.html>).

The major acceptable topics, discussions, and related questions to be addressed for journal manuscripts and other submissions are listed below. The questions and statements below are only examples to stimulate ideas among our potential contributors and many aspects of each can be combined into a single approach or discussion.

1) Definition of Astrosociology

Discussion: The baseline definition of astrosociology – that is, the scientific study of *astrosocial phenomena*, or the social, cultural, and behavioral patterns related to outer space – serves as a fundamental starting point. Defining the human dimension of space exploration, settlement, and resource exploitation, which involves the two-way relationship between humankind and space, is a critical area of scientific investigation. Suggested research questions/issues include:

- What does the astrosociological approach, based on the definition above, contribute to traditional approaches in the space community?
- How does the approach of astrosociology as a multidisciplinary academic field affect the development of the definition and the field itself?
- In what ways can the base definition of astrosociology be modified? How would such modifications improve astrosociological investigation?

2) Astrosociological Education

Discussion: The various issues covering astrosociology in the classroom are of great importance to the development of the field. The educational process is critical for informing professionals in the space community as well as younger students about astrosociological issues and how the social sciences can provide original contributions to human space exploration and related substantive areas. Studies that cover the impact of space in the social and behavioral sciences, humanities, and the arts in the classroom are of significant interest for present and future human society. Alternatively, non-classroom based outreach is also an important method to help educate and is of particular interest to the journal. Suggested research questions/issues include:

- What are the various possible educational models? How do they work, and what are their benefits and disadvantages?



THE JOURNAL OF ASTROSOCIOLOGY – LIST OF SUGGESTED AUTHOR TOPICS

- What are some ideas regarding a workshop for existing professionals and the ramifications of developing an astrosociological community?
- Why is integrating astrosociology into existing programs and courses as an intermediate goal a cornerstone of the development process?
- What are the potential student roles in astrosociology education and the field development process?
- How might one establish astrosociology courses, programs, curricula, and departments, including actual efforts and plans for implementation?
- How might one recruit high school and college students to pursue astrosociology?
- What types of methods do/can educators use or have used that incorporate(s) STEM education with the social sciences? How important is it to teach both aspects to students?

3) Theoretical Astrosociology

Discussion: Like any academic field, astrosociology progresses through the interaction between theory and research. The development of astrosociology requires the construction and sharing (for testing) of conceptualizations that focus on *astrosocial phenomena*. Suggested research questions/issues include:

- What are the epistemological limitations of astrosociology?
- How can the astrosociological paradigm be modified to better reflect observations of *astrosocial phenomena*?
- What types of theoretical model(s) and/or hypotheses characterize various types of *astrosocial phenomena*?
- What are the connections between the astrosocial sector, which includes societal elements that involve *astrosocial phenomena*, and the non-astrosocial sector, e.g., what are the connections between NASA and politics?
- How do various facets of *astrosocial phenomena* affect societies? What is their importance to cultural and social change?
- How may space exploration analogs provide new insights and avenues for future research endeavors?
- What literature already exists that addresses areas of astrosociological theory?
- What are some recommendations for future research projects based on theory?

4) Astrosociological Research

Discussion: The testing of hypotheses and theoretical models through various forms of investigation allows for the development of astrosociology. Suggested research questions/issues include:

- What empirical investigations touch on *astrosocial phenomena*, both new research and/or summaries of past investigations?
- What are some tests for astrosociological theoretical models and hypotheses? What modifications could be necessary?
- Review research addressing analogs to space exploration in its various forms, and/or provide new research findings in this area.



THE JOURNAL OF ASTROSOCIOLOGY – LIST OF SUGGESTED AUTHOR TOPICS

- Provide a literature review that summarizes some area of past research that relates in some way to astrosociology.

5) Applied Astrosociology

Discussion: Practical approaches that take advantage of *astrosocial phenomena* for the benefit of societies, communities, and the lives of individuals serve as important contributions of astrosociology. This focus consists of social scientists (including astrosociologists) studying such contributions by others as well as their own participation in such activities. Suggested research questions/issues include:

- What are some examples and/or future possibilities in which the utilization of space assets contributes to the mitigation of social problems on Earth?
- Discuss research that touches on both space and sociocultural and/or psychosocial efforts that contribute to improving social life in terrestrial societies.
- Discuss space spinoffs/technology transfers and their impacts on various social institutions, groups, and categories of individuals.
- How do media and the arts that focus on outer space issues affect human culture? What comparisons can be made cross-culturally that describe how different societies view outer space technologies and activities?

6) Medical Astrosociology

Discussion: Space medicine focuses almost exclusively on the biomedical aspects of space activities such as the effects of microgravity on the human body. Space psychology is also addressed to some extent. However, the social and cultural issues that arise among members of a crew, and in the future among citizens in space ecologies, require a greater focus. These are astrosociological issues that require attention in order to understand the social effects of going into outer space and the ramifications it has on social stability and individual health. Suggested research questions/issues include:

- Discuss various aspects regarding the social, cultural, and behavioral aspects of space medicine.
- What are some of the ethical implications of medical decision-making in space ecologies?
- Discuss the relationship between behavioral health and medical astrosociology.

7) Planetary Defense

Discussion: Planetary defense typically involves the detection and defense against a celestial object impacting humankind's home planet, Earth. These areas of concern are important for astrosociologists. However, the social sciences are also well equipped to study the third component of planetary defense; namely, disaster relief efforts following an asteroid or comet strike. Preparation for the aftermath of a strike would become an issue if defense failed and humankind had time to react before a strike. Suggested research questions/issues include:

- Focus on issues involving detection, defense, and protection of terrestrial life as three different stages or as one united approach.
- Discuss the differences between protecting Earth and protecting human societies and cultures. What are the implications of success, partial success, and failure – and how are these different outcomes defined?



THE JOURNAL OF ASTROSOCIOLOGY – LIST OF SUGGESTED AUTHOR TOPICS

- What level of preparedness is prudent (or too little or too much) to respond to a real threat?
- What actions must be taken, or what actions are necessary, for coping with a strike by asteroid, comet, or other space phenomena? Discuss disaster relief efforts in the aftermath of a strike.
- What types of planning has occurred or should occur to mitigate any potential harm to Earth, human societies, or the human species?

8) SETI and Astrosociology

Discussion: SETI, the search for extraterrestrial intelligence, involves listening to radio signals – and more recently other types of emissions and planetary features – from alien civilizations. Astronomers and others seek such signals without any guarantee of success. Social scientists have also played a role in theoretical discussions regarding the potential presence of alien life and the likely responses to the actual discovery of extraterrestrial life. Suggested research questions/issues include:

- What is the cultural impact of the effort itself to detect alien life?
- How does humankind benefit from SETI even before detecting extraterrestrial life?
- Provide analysis and/or profiles of the work of those who carry out the search.
- What are some of the major issues related to constructing and sending messages to potential alien civilizations?
- What are the astrosociological implications of actually detecting alien life?

9) Astrosociological Implications of Astrobiology

Discussion: Astrobiologists continue to discover new organic molecules in space and various forms of extremophiles in a variety of environments, both natural and human-made. Suggested research questions/issues include:

- Discuss how the search for extraterrestrial life has impacted human society and our species place in the universe.
- How does astrobiological research on Earth affect societies and their various components?
- What is the relationship between astrosociological research and astrobiological theory and research?
- How could astrobiology inform astrosociology as it relates to the rise of social groups among various organisms?

10) Space Law

Discussion: Space law exists to regulate the behavior of social actors, i.e., persons, groups, organizations, and states that operate and conduct activities in outer space. As new space technologies strain the international legal system and the enabling national laws that govern states, we can expect and do see social responses to the use of space technologies. Space technologies bring people closer together and also separate societies who have such space capabilities from those states that do not. Given the social pressures that inherently arise from the technological development to access outer space, space law serves as the regulating mechanism to defuse lawlessness (or anarchy) and provide rules for social actors engaged in space activities. The study of space law, both at the individual, national, and international level, provides a significant backdrop by which to engage in astrosociological research, i.e., at the



THE JOURNAL OF ASTROSOCIOLOGY – LIST OF SUGGESTED AUTHOR TOPICS

nexus of law and astrosociology (see, e.g., Hearsey, C.M., *The Nexus Between Law and Astrosociology*, *Astropolitics*, Vol. 9(1) at 28, 2011). Suggested research questions/issues include:

- What are some of the social and cultural aspects of legal issues related to outer space in terrestrial societies?
- How should states organize law-making and jurisprudential systems for outer space?
- Can or will outer space law be described as a postmodern legal system?
- How will outer space law continue to function or evolve?
- Will extraterrestrial societies, i.e., human societies not on Earth, be held together by a consensus of legal values or by coercion?
- How does outer space law fit into the social construction of law?
- How are rules for outer space connected to the natural law whose content is set by nature and has universal validity? Or is outer space law derived from basic norms?
- Are there aspects of outer space law that constitute peremptory norms? If so, how will that affect social systems that arise beyond Earth?
- How will non-binding rules affect the development of space law going forward? What impact will it have on any aspect of society?

11) Space Policy

Discussion: Policy is a general prerequisite to law and a fundamental aspect of decision-making that encompasses all aspects of social life. As applied to astrosociology, space policy has a wide variety of topics that intersect with the study of astrosocial phenomena. Suggested research questions/issues include:

- What is the status of space exploration in various nations?
- How does governmental space policy affect real efforts in space?
- What impact do private space companies have on governmental space policy?
- Discuss the role of space advocacy groups in affecting space policy.
- How is “New Space” affecting humankind’s progress in space?
- Discuss the details of international cooperation in the pursuit of space exploration.
- How do the benefits/costs of space policy (or law) affect segments of human society not engaged in space activities?

12) Space History

Discussion: Space has played a significant role in societies throughout history. It is therefore beneficial to study the historical developments in astronomy and space exploration and their social impacts at every level of analysis. Since the history of human and robotic space exploration in the modern era has lasted over fifty years, there have been great achievements, bitter disappointments, tragedies, and some argue lost opportunities. Moreover, the scientific and exploratory aspects considered at the heart of the space exploration have been shaped by politics and other social and cultural forces that resulted often in detrimental outcomes and extraordinary achievements. Furthermore, past human societies have been affected by what happens in outer space and, in some cases, human history has been shaped by celestial events. Suggested research questions/issues include:



THE JOURNAL OF ASTROSOCIOLOGY – LIST OF SUGGESTED AUTHOR TOPICS

- Discuss the space history, or a portion thereof, of societies in any recorded area of study.
- How did space affect ancient societies/pre-historical cultures – e.g., pre-historic Britain, China, Egypt, Africa, Samaria, etc.?
- How have celestial events affected the development of human society? How could expected future events shape the future of human society and what could be the social benefits/costs?
- What impacts did major developments in astronomy, planetary science, rocketry, or space exploration have on societies or groups of people?
- What historical analogs describe current endeavors to venture into outer space?

13) Space Economics

Discussion: Generally, economics is the study of how the production, distribution, and consumption of goods and services operate in a society. As technology enables humans to consume space based resources, such activities will significantly affect human society on and off Earth. Furthermore, satellites are playing a large role in how resources are consumed on Earth. Studying the economic effects of space technologies and activities is therefore an important and underdeveloped topic of inquiry. Suggested research questions/issues include:

- What types of phenomena are observed or could be observed due to human activities in outer space? How do these phenomena affect human society's consumption of space based resources?
- How will the consumption of space based resources change the dynamics of economics on Earth?
- How has technology changed the way resources are used and consumed on Earth? What types of space based assets are important to human society and what are their economic and social benefits/costs?
- Will consuming outer space resources change economic systems? If so, how? If not, why?

14) Literature and Astrosociology

Discussion: Oral traditions and literature have played a large role in the development of the social consciousness related to outer space. From stories about gods in the heavens to science fiction about trips to the Moon and Mars, outer space as a subject or backdrop in story-telling has had a significant effect on human society. Suggested research questions/issues include:

- How has space related literature affected human's drive to go into outer space? How has it shaped the social consciousness?
- How does literature create social constructs in human societies to explain our place in the universe?
- What sources of literature have influenced humans to venture into outer space? What themes or lessons are portrayed? What conclusions can society draw from literature?
- How does storytelling through movies or art shape our understanding of space issues?

15) Space Societies (including Crews, Micro-Societies, Mini-Societies, and Communities)

Discussion: Human groups living in isolated space ecologies within space habitats – whether on planets, moons, or orbiting a space body – require social-scientific consideration even though very few human beings live in space at one time. Suggested research questions/issues include:



THE JOURNAL OF ASTROSOCIOLOGY – LIST OF SUGGESTED AUTHOR TOPICS

- What are the major issues involving social and cultural aspects of social groups living in non-terrestrial ecosystems/habitats?
- A focus on the definitions of space environments, ecosystems, and space ecologies. How do they differ and how are they related to one another?
- What types of social relationship will emerge between humans that stay on Earth and those who leave Earth to venture out into the Solar System or beyond?

16) Spacefaring Societies

Discussion: The future of humankind on Earth is likely to be characterized by a growing influence of space in the lives of citizens as well as social institutions, groups, categories within societies, and international relations among nations. A spacefaring society is one in which the effects of space are omnipresent on a number of different social, cultural, and physical levels. This term refers to an ideal type of society that is impossible to emulate in reality, but represents a potential state that societies can strive toward. Though this possibility can only occur in the distant future, if at all, this topic is open to both theoretical speculation and practical research. Suggested research questions/issues include:

- Discuss studies covering social and cultural change that focus on the possibility of space influencing social groups and social institutions on a greater level.
- Speculate about milestones that may signal movement toward, and/or retreat from, progress toward spacefaring characteristics.

17) Hard Space Sciences and Astrosociology

Discussion: The status of collaboration between the “hard” sciences and “soft” sciences relating to space exploration, settlement, and exploitation of space resources is best characterized as limited, though it is increasing. Suggested research questions/issues include:

- What is the status of collaboration between the “hard” sciences and “soft” sciences relating to space exploration, settlement, and exploitation of space resources?
- What are some examples of, and protocols for, collaborative efforts?
- Describe how the collaboration between the physical and social sciences can result in synergistic breakthroughs impossible by either approach alone.

18) Other Topics

Discussion: The Editor-in-Chief and Editorial Board of *The Journal of Astrosociology* will consider manuscripts covering other areas that address astrosociological issues not covered in this document. Analysis, research, and discussions should involve approaches that address astrosocial issues; that is, social, cultural, and behavioral concepts related to space. These issues are common to the social and behavioral sciences, humanities, and the arts. The journal also seeks perspectives from non-social scientists who present credible theories and/or research that ties their work to *astrosocial phenomena*. Failure to address astrosociological topics shall in no way prejudice a potential Author from publishing with the journal, but some topics may be beyond the scope of issues the journal is willing to accept. All questions regarding topics should be addressed to the Editor-in-Chief.